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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,273

08/02/2005

John Anthony Dunne

93883

2333

24628

7590

09/18/2007

WELSH & KATZ, LTD
120 S RIVERSIDE PLAZA
22ND FLOOR
CHICAGO, IL 60606

EXAMINER

CROWE, DAVID R

ART UNIT

PAPER NUMBER

2885

MAIL DATE

DELIVERY MODE

09/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,273

Applicant(s)

DUNNE ET AL.

Examiner

David R. Crowe

Art Unit

2885

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-20 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-20 and 23-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The amendment filed July 19, 2007 has been entered.

Specification

1. The disclosure is objected to because of the following informalities: The specification must include reference to the claimed subject matter in such a way as to be understood by one of ordinary skill in the art. As presented, claim 1 results in the following disagreements with the specification. Housing [10] has a recessed portion for an aperture in which a first lens can be nested. Further including a selectively variable filter housing [12] being rotateable to interpose filters [24]. However as recited in the specification [10] is not "a housing" but a "filter housing", item 12 is not "a filter housing", but a "filter wheel" and "the aperture [3]" is formed in the filter wheel and not the housing.

Appropriate correction is required.

Claim Objections

2. Claims 1, 12 19, 20, 23, 24, 25 are objected to because of the following informalities:

Re claim 1: Typographical error, "from" in line 1 should read - - for- -.

Typographical error, "minimise" in line 8 should read - -minimize- -.

Re claim 12: Dependency should be changed to claim 1 since claim 6 was canceled.

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Re claim 19: Remove "one of the filter housing and" since the housing it self does not rotate it shouldn't have a rotational axis.

Re claim 20: Dependency must be changed to avoid dependency on a canceled claim.

Re claim 23: "the portion" lacks antecedent basis in the claim. Examiner suggests amending to - -a portion- -.

Re claims 24 and 25: "Chamber" lacks antecedent basis in the claims. Examiner suggests amendment to dependence on claim 9.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-5, 7-20 and 23-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 is rejected as being unclear when describing how the filter housing is rotateable. Figure 8 shows housing [10] being bolted to lens supports [44] and [46]. Figure 3 shows housing [10] attached by wire to external control unit [18]. The

specification further fails to provide explanation of how [10] rotates to select the required filter. Discussion of the filter housing should include discussion of the filter wheel in combination therewith.

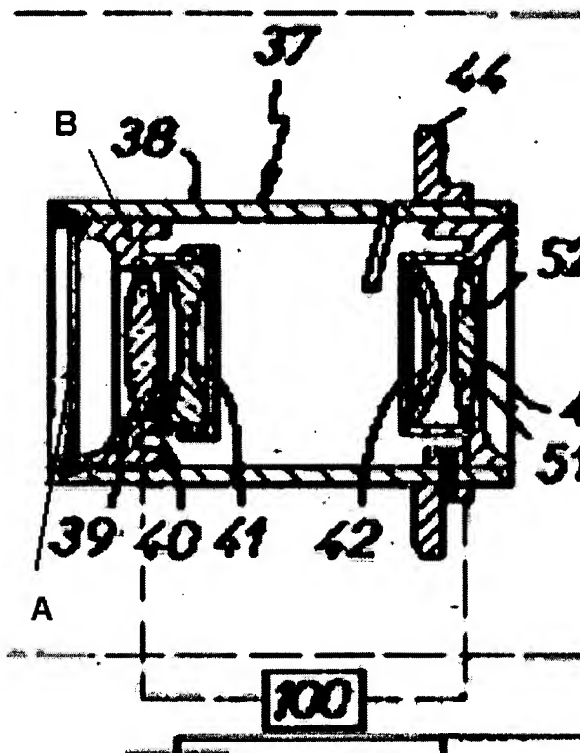
Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 7, 8 19, 20, 23, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leclercq (US 4,745,531) in view of Avital (WO/00/49334).

Re claim 1: Leclercq discloses a light source [10] and means for focusing the light from the light source to a light beam [reflector 14 and condensing lens 15] so that it has a selected focal length, and an aperture ["A"] in a recessed portion ["B"] in a housing [37] for directing the focused light from said spotlight to a first lens [39] nested at least partially within said recess portion when in a position closely adjacent to said aperture, said first lens being movable [via mechanism 100] to adjust the width of said output light beam, wherein the first lens is movable to the position closely adjacent to said aperture and about or at said selected focal length to minimize said output light beam width. Leclercq further discloses a variable filter housing [1] having two or more filters [25]. [See figure 3, columns 4-7]



Leclercq fails to teach a rotateable filter housing to interpose the filters between the light source and the aperture.

Avital teaches a filter wheel [32] with a range of filter zones [plural filters] spaced around the wheel, which is adjusted by rotation and found between the light source and first lens. [See figure 2 and page 5, lines 20-25.]

It would have been obvious to one of ordinary skill in the art to include the filter wheel of Avital between the first lens and light source of Leclercq in order to select the color of the light to be paced through the filters, which add effects.

Re claims 2 and 3: Although Leclercq modified by Avital fails to teach the f number of the light source, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select a known light source with means of focusing light with a resulting f number of near 1.3 in order to properly focus the light

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through the aperture to the first lens based on the size of the aperture used and housing space available for the lens, as it has been held to be within the ordinary level of skill in the art to discover the optimum workable range of a system. In re Aller, 105 USPQ 233.

Re claim 4: The recitation of the maximum intensity occurs when the first lens is at the focal length is only a statement of the inherent properties of the spot light. The structure recited in Leclercq is substantially identical to that of the claims, claimed properties are presumed to be obvious results of the optics shown by Leclercq. In re Best, 195 USPQ 430, 433 (CCPA 1977) and MPEP 2112.01.

Re claim 5: Although Leclercq fails to disclose the intensity of the spot light, it has been found to be within the ordinary skill in the art to discover the optimum workable range, in this case the most desirable amount of light, of an apparatus property when all other limitations of the claim have been met. In re Aller, 105 USPQ 233.

Re claim 7: As applied to Leclercq modified by Avital, Avital discloses a motor 33 connected to the filter wheel. As the wheel has been interpreted as the filter housing, the drive post of the motor constitutes a portion of the filter housing rotateable relative to the housing in order to selectively interpose on of said filters. [See figure 2 and page 5, lines 20-25.]

Re claim 8: It is also a reasonable interpretation as discussed in the previous action to view the filter wheel in combination with the motor as the "filter housing" and wherein the filter wheel 32 is a portion of the housing that rotates to interpose the filters and is then obviously a filter wheel as required by claim 8.

Re claim 19: The rotational axis of the color wheel of Avital is parallel and offset from the optical/longitudinal axis of the spot light since the specific filter section in use should correspond with the longitudinal axis.

Re claim 20: The aperture is located in a lens housing, separate from the filter housing. [See examiner figure above]

Re claim 23: The recess portion ["A"] is shaped to the first lens. [They are both presumed to be circular and the recessed portion is holding the first lens].

Re claims 28-30: Avital teaches two lenses which are to be adjusted simultaneously and at different rates and therefore obviously moving relative to one another. [Abstract]

It would have been obvious to one of ordinary skill in the art at the time the invention was made that axial moving means [100] of Leclercq should be capable of simultaneous movement at different speeds as taught by Avital in order to properly and quickly focus light output.

7. Claims 9-14, 17, 18 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leclercq modified by Avital in view of Richardson (US 5,113,332). The teachings of Leclercq modified by Avital have been discussed above.

Re claims 9-11 and 18: Leclercq modified by Avital fails to teach the structure of the filter wheel.

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Richardson teaches chambers 282-286 formed in filter wheel 242. Said chambers are arranged radially offset from the rotational axis 249 of the wheel 242 with said wheel being the rotating portion of the filter housing 40. [See figure 6, columns 3-6]

It would have been obvious to one of ordinary skill in the art to replace the filter wheel of Avital with the filter wheel of Richardson as a matter of functional equivalence.

Re claims 12-14: Leclercq teaches a multiple filter element [25] light filtering system with 4 filter elements.

Leclercq modified by Avital fails to teach the multiple elements in chambers.

Richardson teaches a filter wheel with defined chambers 282-286.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Leclercq by inserting a filter wheel of Richardson as Avital teachings filter wheels in spot light apparatuses, and having each chamber include a plurality of filters in addition or in alternative to the filters [25] already in Leclercq in order to condition the light with colors or patterns as desired based on the environment the light source is used. It has also been held that the mere duplication of parts, filter layers, involves only routine skill in the art, as it is known that filters can be used in combination. *St. Regis Paper co. v. Bemis co.*, 193 USPQ 8.

Re claim 17: Color filters are known to absorb portions of the spectrum to create colored light from white light. It is understood that when creating colored light from a combination of filters, each filter will obviously filter/absorb a different part of the visible spectrum as in creating green from yellow and blue filters.

Re claims 24 and 25: It would have been obvious to one of ordinary skill in the art at the time the invention was made to align the light source with all of the optical elements in use in order to provide a defined light path. Therefore it would have been obvious to have the aperture align with the one chamber of the filter wheel in use, which are radially formed around the filter wheel as shown by Richardson.

Re claims 26 and 27: Richardson teaches the filter wheel with a plurality of chambers for holding filters. Each chamber then must be capable of emitting light, which is down through an aperture associated with that chamber, and defined by the useful portion of whatever filter is in place. Richardson shows the useful portions of the filters drawn as being a variety of sizes and shapes. [This claim does not sufficiently limit the plurality of apertures to including "the aperture" since the aperture of claim 1 is not found necessarily in the filter housing.]

8. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leclercq as modified by Avital and Richardson in further view of Belliveau (US 5758955).

The previously cited prior art fails to teach coated filters.

Belliveau teaches a filter with a dichroic coating on both sides [column 6, line 60]. Since Belliveau teaches coating both sides it would also read on a coating of at least one side. [Column 6, line 60].

It would have been obvious to coat the filters of Leclercq as taught by Belliveau in order to create an improved light field.

Response to Arguments

9. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

The newly added limitation of, "Means for focusing the light source..." is appreciated by the examiner as overcoming the related rejection under 112(2). The amendments to claim 1 however fail to place the application in condition for allowance. The remarks of the applicant point to an attempt to incorporate the limitations previously cited as allowable subject matter. However this has not been accomplished based on the scope of claim 1. First, the claim refers to both a housing for a recess and a filter housing. This interpretation is possible due to the disclosure in claim 20. Second, preferred language in an apparatus claim would recite the object with an aperture therein which would be a more positive recitation of the structure versus a hole with a housing around it. Third, the examiner asserts that individually, and in combination, a focused light source, a filter wheel, and adjustable lens housing are all commonly known in the art. Fourth, claim 1 continues to fail to include sufficient detail as to clearly describe how the filter housing is rotateable as rejected above. The examiner suggests any discussion of the filter housing structure should be in combination with the filter wheel structure.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

The scope of the claims has changed by adding the means for focusing found in the Leclercq reference and not explicitly disclosed in Avital, as well as by bringing in a recessed housing in combination with a filter housing.

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R. Crowe whose telephone number is 571-272-9088. The examiner can normally be reached on 7:30AM-5:00PM w/first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on 571-272-7044. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David R Crowe
Examiner
Art Unit 2885

DRC



JONG-SUK (JAMES) LEE
SUPERVISORY PATENT EXAMINER